AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-18. (Canceled)

19. (Previously Presented): A method of implanting an intravascular stent for repairing a body lumen having vulnerable plaque of a predetermined length, comprising:

providing a catheter having a proximal end and a distal end and an expandable member adjacent the distal end;

providing an intravascular stent, mounted on the expandable member, the stent having a distal section, a proximal section, and a central section positioned between the distal section and the proximal section, the central section having a plurality of struts connected by apices to form a substantially zig zag pattern around the circumference of the stent in the central section;

the distal section and the proximal section having cylindrical rings having a first longitudinal length, and the central section having a cylindrical ring having a second longitudinal length at least as long as the predetermined length of the vulnerable plaque, the first longitudinal length being shorter than the second longitudinal length;

the central section struts being arranged in a substantially uniform repeating pattern forming a single ring;

the central section struts having a substantially uniform air to metal ratio;

inserting the catheter into the vascular system and advancing the catheter distal end so that the stent is positioned in a body lumen to be repaired;

aligning the stent in the body lumen so that the central section substantially aligns with the area of vulnerable plaque;

inflating the expandable member and implanting the stent in the body lumen; and

deflating the expandable member and withdrawing the catheter from the vascular system.

20. (Previously Presented): A flexible intravascular stent for use in a body lumen, comprising:

a distal section, a proximal section, and a central section positioned therebetween;

the distal section and the proximal section each having a plurality of interconnected cylindrical rings, each cylindrical ring having a first delivery diameter and a second expanded diameter;

each cylindrical ring having a proximal end and a distal end and a cylindrical wall extending circumferentially between the proximal end and the distal end of the cylindrical ring;

the distal section and the proximal section having cylindrical rings having a first longitudinal length, and the central section having a cylindrical ring having a second longitudinal length, the first longitudinal length being shorter than the second longitudinal length;

at least one undulating link attaching each cylindrical ring to an adjacent cylindrical ring, the undulating links being positioned substantially within the cylindrical wall of the cylindrical ring;

the central section having a plurality of struts connected by apices and extending around the circumference of the central section, the struts and apices connecting the distal section to the proximal section, the central section struts being arranged in a substantially uniform repeating zig zag pattern forming a single central ring; and

the central section having a substantially uniform air to metal ratio.

Claim 21. (Canceled)

22. (Previously Presented) The stent of claim 20, wherein the central section struts have a straight configuration.

23. (Previously Presented) The stent of claim 20, wherein the central section struts have a substantially curved configuration.

24. (Previously Presented) The stent of claim 20, wherein the central section struts have a substantially straight section and a substantially curved section.

25. (Original) The stent of claim 20, wherein at least one undulating link comprises at least one bend connected to a substantially straight portion, the substantially straight portion being substantially perpendicular to the stent longitudinal axis.

26. (Original) The stent of claim 25, wherein the substantially straight portion of the at least one undulating link is perpendicular to the stent longitudinal axis when the stent is in the first delivery diameter configuration.

27. (Original) The stent of claim 25, wherein the substantially straight portion of the at least one undulating link is perpendicular to the stent longitudinal axis when the stent is in the second expanded diameter configuration.

28. (Original) The stent of claim 20, wherein at least one of the undulating links comprise a plurality of bends.

29. (Original) The stent of claim 20, wherein each cylindrical ring comprises a plurality of peaks and valleys.

30. (Original) The stent of claim 29, wherein two peaks are positioned between each valley.

31. (Original) The stent of claim 29, wherein the peaks of each cylindrical ring are in phase with the peaks of an adjacent cylindrical ring.

32. (Original) The stent of claim 20, wherein the undulating links are configured to provide flexibility to the stent.

33. (Original) The stent of claim 20, wherein the cylindrical rings are configured to provide flexibility to the stent.

34. (Original) The stent of claim 20, wherein the stent is formed from a tube.

35. (Original) The stent of claim 20, wherein the stent is formed from a metal alloy.

36. (Original) The stent of claim 20, wherein the stent is formed from stainless steel.

37. (Original) The stent of claim 20, wherein the stent is formed from a shape memory alloy.

38. (Original) The stent of claim 37, wherein the stent is formed from the group of shape memory alloys consisting of nickel titanium and nickel/titanium/vanadium.

39. (Original) The stent of claim 20, wherein the stent is formed from a pseudoelastic metal alloy.

40. (Original) The stent of claim 39, wherein the stent is formed from the group of pseudoelastic metal alloys consisting of nickel titanium and nickel/titanium/vanadium.

41. (Original) The stent of claim 20, wherein at least a portion of the central section is provided with a cover.

42. (Original) The stent of claim 41, wherein the stent cover is formed of a polymer.

43. (Original) The stent of claim 42, wherein the polymer cover is taken from the group of polymers including PTFE and ePTFE.

44. (Original) The stent of claim 43, wherein the stent cover is attached to the struts of the central section by an adhesive.

45. (Original) The stent of claim 44, wherein the stent cover is attached to the struts of the central section by laser bonding.

46. (Original) The stent of claim 20, wherein at least a portion of the distal section rings are coated with a therapeutic drug to reduce cell growth distal to the vulnerable plaque.

47. (Original) The stent of claim 20, wherein at least a portion of the proximal section rings are coated with a therapeutic drug to reduce cell growth proximal to the vulnerable plaque.

48. (Original) The stent of claim 20, wherein at least a portion of the distal section rings and the proximal section rings are coated with a therapeutic drug to reduce cell growth on either side of the vulnerable plaque.

Claims 49-57. (Canceled)

58. (Previously Presented) A stent for implanting in a body lumen, comprising:

a distal section, a proximal section, and a central section positioned between the distal section and the proximal section, each section being aligned along a common longitudinal axis forming the stent;

the distal section having a first strut pattern, the proximal section having a second strut pattern, and the central section having a third strut pattern;

wherein the third strut pattern has a substantially uniform repeating series of zig-zagging struts that form a single ring;

the distal section and the proximal section having cylindrical rings having a first longitudinal length, and the central section having a cylindrical ring having a second longitudinal length, the first longitudinal length being shorter than the second longitudinal length;

the first strut pattern having a first metallic surface area;

the second strut pattern having a second metallic surface area;

the third strut pattern having a third metallic surface area;

the third strut pattern having a substantially uniform air to metal ratio; and

at least one of the first and second metallic surface areas being greater that the metallic surface area of the third strut pattern.

59. (Original) The stent of claim 58, wherein the metallic surface areas of at least one of the first and second strut pattern being less than about 20%.

60. (Original) The stent of claim 58, wherein the first, second and third strut patterns are in an expanded configuration.

61. (Previously Presented) A stent for treating vulnerable plaque, comprising:

a distal section, a proximal section, and a central section positioned between the distal section and the proximal section, each section being aligned along a common longitudinal axis forming the stent;

the distal section and the proximal section having a first strut pattern and a second strut pattern respectively, and the central section having a third strut pattern;

wherein the central section has a uniform repeating series of zig-zagging struts that form a single ring;

the distal section and the proximal section having cylindrical rings having a first longitudinal length, and the central section having a cylindrical ring having a second longitudinal length, the first longitudinal length being shorter than the second longitudinal length;

the central section having a substantially uniform air to metal ratio;

each strut pattern having curved portions and straight portions configured to allow the patterns to compress and expand; and

the third strut pattern having fewer curved portions and straight portions that the first and second strut patterns.

62. (Original) The stent of claim 61, wherein the third strut pattern is disposed between the first and the second strut patterns.

63. (Original) The stent of claim 61, wherein the first strut pattern is different than the second strut pattern.

64. (Original) The stent of claim 61, wherein the first strut pattern and the second strut pattern are substantially the same.

65. (Original) The stent of claim 61, wherein the third strut pattern is different than the first and second strut patterns.

66. (Original) The stent of claim 61, wherein the third strut pattern has an air to metal ratio that is higher than an air to metal ratio of the first or second strut pattern.

67. (Previously Presented) An intravascular stent for use in a body lumen, comprising:

a distal section, a proximal section, and a central section positioned between the distal section and the proximal section, each section being aligned along a common longitudinal axis forming the stent;

the distal section and the proximal section having cylindrical rings having a first longitudinal length, and the central section having a cylindrical ring having a second longitudinal length, the first longitudinal length being shorter than the second longitudinal length;

the distal section and the proximal section having a first strut pattern and a second strut pattern respectively, and the central section having a third strut pattern;

the third strut pattern having a substantially uniform repeating series of struts that form a single central ring wherein each strut is directly attached to an adjacent strut to define a zig-zag pattern;

the first strut pattern and the second strut pattern being more dense than the third strut pattern;

the third strut pattern having a substantially uniform air to metal ratio; and

wherein the third strut pattern includes straight struts, at least some of the straight struts having undulating members.

68. (Previously Presented) The stent of claim 67, wherein the stent is formed from a metal alloy.

69. (Previously Presented) The stent of claim 67, wherein the stent is formed from stainless steel.

70. (Previously Presented) The stent of claim 67, wherein at least a portion of the central section is provided with a polymer cover.

71. (Previously Presented) The stent of claim 67, wherein at least a portion of the distal section rings are coated with a therapeutic drug.

72. (Previously Presented) The stent of claim 67, wherein at least a portion of the proximal section rings are coated with a therapeutic drug.

73. (Previously Presented) The stent of claim 67, wherein at least a portion of the distal section rings and the proximal section rings are coated with a therapeutic drug.

74. (Previously Presented) An intravascular stent for use in a body lumen, comprising:

a distal section, a proximal section, and a central section positioned between the distal section and the proximal section, each section being aligned along a common longitudinal axis forming the stent;

the distal section and the proximal section having cylindrical rings having a first longitudinal length, and the central section having a cylindrical ring having a second longitudinal length, the first longitudinal length being shorter than the second longitudinal length;

the distal section and the proximal section having a first strut pattern and a second strut pattern respectively, and the central section having a third strut pattern;

the third strut pattern having a substantially uniform repeating series of struts that form a single central ring wherein each strut is directly attached to an adjacent strut to define a zig-zag pattern;

the first strut pattern and the second strut pattern being more dense than the third strut pattern;

the third strut pattern having a substantially uniform air to metal ratio; and

wherein the third strut pattern includes undulating struts.

75. (Previously Presented) The stent of claim 74, wherein the stent is formed from a metal alloy.

76. (Previously Presented) The stent of claim 74, wherein the stent is formed from stainless steel.

77. (Previously Presented) The stent of claim 74, wherein at least a portion of the central section is provided with a polymer cover.

78. (Previously Presented) The stent of claim 74, wherein at least a portion of the distal section rings are coated with a therapeutic drug.

79. (Previously Presented) The stent of claim 74, wherein at least a portion of the proximal section rings are coated with a therapeutic drug.

80. (Previously Presented) The stent of claim 74, wherein at least a portion of the distal section rings and the proximal section rings are coated with a therapeutic drug.

81. (Previously Presented) An intravascular stent for use in a body lumen, comprising:

a distal section, a proximal section, and a central section positioned between the distal section and the proximal section, each section being aligned along a common longitudinal axis forming the stent;

the distal section and the proximal section having cylindrical rings having a first longitudinal length, and the central section having a cylindrical ring having a second longitudinal length, the first longitudinal length being shorter than the second longitudinal length;

the distal section and the proximal section having a first strut pattern and a second strut pattern respectively, and the central section having a third strut pattern;

the third strut pattern having a substantially uniform repeating series of struts that form a single central ring wherein each strut is directly attached to an adjacent strut to define a zig-zag pattern;

the first strut pattern and the second strut pattern being more dense than the third strut pattern; and

the third strut pattern having a substantially uniform air to metal ratio; and

wherein the distal section and the proximal section each have a plurality of cylindrical rings interconnected along the longitudinal axis by links.

82. (Previously Presented) The stent of claim 81, wherein the stent is formed from a metal alloy.

83. (Previously Presented) The stent of claim 81, wherein the stent is formed from stainless steel.

84. (Previously Presented) The stent of claim 81, wherein at least a portion of the central section is provided with a polymer cover.

85. (Previously Presented) The stent of claim 81, wherein at least a portion of the distal section rings are coated with a therapeutic drug.

86. (Previously Presented) The stent of claim 81, wherein at least a portion of the proximal section rings are coated with a therapeutic drug.

87. (Previously Presented) The stent of claim 81, wherein at least a portion of the distal section rings and the proximal section rings are coated with a therapeutic drug.

88. (Previously Presented) The stent of claim 81, wherein the links have a substantially straight configuration.

89. (Previously Presented) The stent of claim 81, wherein the links have an undulating configuration.

90. (Previously Presented) The stent of claim 81, wherein the links have a straight section and an undulating section.

91. (Previously Presented) The stent of claim 81, wherein the links have a straight section and a curved section.